

**Alaska Energy Authority & Denali Commission  
Emerging Energy Technology Fund Progress Report**

**Grant Number:** 7310049

**Project Title:** Small Community Self Regulating Grid – Tuntutuliak

**Grantee:** Intelligent Energy Systems

**Reporting Period:** April 1 to June 30, 2014

**Deliverables Submitted:** One-Line Drawing of SRG system and Instrumentation Plan submitted. Documentation from Tuntutuliak Community Service Association showing continuation of support for SRG was also submitted. Milestones 2, 6-8, and 11 are in progress. Milestones 3-5 are complete.

**Budget:** Project remains on budget and within the limits of the revised schedule. Reimbursement requested for \$101,141.13. Included financial report of \$108,641.13 with \$7,500 in match funds contributed. Total project expenditures to date are \$264,424.31.

**Schedule Status:** Wind Turbine repairs and upgrades were completed so that the SRG project could proceed. Instrumentation was purchased and 50% installed.

**Percent Complete:** 50% project completion overall.

Miles tone	Task		Deliverables	Progress Status
1	Purchase components for controller upgrades and software license			100% Complete
2	Complete controller programming for prototype			75% Complete
3	Test single ETS unit controller for frequency response at ACEP test facility	1. ACEP test results		100% complete. Final report from UAF/INE complete
4	Develop system instrumentation plan	2. System one line, & 3. Instrumentation Plan		100% complete
5	Purchase data collection instrumentation			100% complete
6	Install data collection instrumentation, and baseline data collection	4. Estimated installation costs		In progress
7	Purchase installation and commissioning components			In progress
8	3-phase load balancing system			In progress
9	Install and commission SRG system	5. Commissioning report installations		
10	Monitor system in centralized and distributed frequency controls modes and optimize system efficiency			

	11	Economic analysis on stove consumption	6, Economic analysis	In progress
	12	Data evaluation and draft project report	7. Draft project report	
	13	Final project report	8. Final report	

**Work Progress:** Wind Turbines were fixed and improved to allow for continued ETS stove operations and future commissioning of SRG project. One line drawing and instrumentation plan submitted to AEA. Data collection materials purchased and delivered to site. 50% installation completed and integrated into SCADA. TCSA board deliberated additional ETS installation locations.

**Future Work:** Finish installation of monitoring equipment, baseline power quality studies and implementation of data collection and reporting system is proposed for completion by August 31.

Project remains on budget with no significant problems foreseen.